## CLAIMS

What is claimed is:

1. A method for driving a display, comprising the steps of:

(a) storing a voltage value in an analog memory associated with each pixel of a display, wherein each of the pixels has a comparator associated therewith;

(b) applying a reference voltage and the voltage values stored in the analog memory to the comparators of the pixels;

(c) comparing the voltage values with the reference voltage for determining which of the voltage values matches the reference voltage; and

(d) changing the state of the pixels whose voltage values match the reference voltage.

2. The method as recited in claim 1, wherein the display is an active matrix panel display.

3. The method as recited in claim 1, and further comprising the step of applying illumination.

4. The method as recited in claim 3, wherein the reference voltage is changed as a function of time for causing each pixel to change state at a desired time.

5. The method as recited in claim 1, wherein the states of groups of the pixels are changed, and further comprising the step of changing the states of the groups of the pixels in multiple phased cycles.

6. The method as recited in claim 5, wherein the groups are interspersed on the display to avoid flicker at low update rates.

7. The method as recited in claim 1, wherein the pixel provides illumination.

8. The method as recited in claim 7, wherein the display is an organic light emitting diode display (OLED).

9. The method as recited in claim 8, wherein the states of groups of the pixels are changed, and further comprising the step of changing the states of the groups of the pixels in multiple phased cycles.

10. The method as recited in claim 9, wherein the groups are interspersed on the display to avoid flicker at low update rates.

11. The method as recited in claim 1, wherein the voltage value in at least a portion of the analog memories is adjusted for providing gamma correction.

12. A system for driving a display, comprising:
(a) a plurality of pixels;
(b) an analog memory associated with each pixel of a display, wherein a voltage value associated with each of the pixels is stored in the analog memory;
(c) a comparator associated with each of the pixels, wherein the comparators compare the voltage values with a reference voltage for determining which of the voltage values match the reference voltage; and
(d) logic for changing the state of the pixels whose voltage values match the reference voltage.

13. The system as recited in claim 12, wherein the display is an active matrix panel display.

14. The system as recited in claim 12, and further comprising logic that applies illumination after the change of state of the at least one pixel.

15. The system as recited in claim 14, wherein the reference voltage is changed as a function of time for causing each pixel to change state at a desired time.

16. The system as recited in claim 12, wherein the states of groups of the pixels are changed in multiple phased cycles.

17. The system as recited in claim 16, wherein the groups are interspersed on the display to avoid flicker at low update rates.

18. The system as recited in claim 12, wherein the pixel provides illumination.

19. The system as recited in claim 18, wherein the display is an organic light emitting diode display (OLED).

20. The system as recited in claim 19, wherein the states of groups of the pixels are changed, and further comprising the step of changing the states of the groups of the pixels in multiple phased cycles.

21. The system as recited in claim 20, wherein the groups are interspersed on the display to avoid flicker at low update rates.

22. The system as recited in claim 12, wherein the voltage value in at least a portion of the analog memories is adjusted for providing gamma correction.

23. The system as recited in claim 12, wherein each of the pixels includes a level shifter for changing a lower voltage to a higher voltage for output to a pixel electrode of the associated pixel.